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NEW HAMPSHIRE
AGRICULTURAL EXPERIMENT STATION
DEPARTMENT OF CHEMISTRY

THE FERTILIZER INSPECTION FOR 1914

MADE FOR THE
DEPARTMENT OF AGRICULTURE

BY B. E. CURRY AND T. O. SMITH

NEW HAMPSHIRE COLLEGE
OF
AGRICULTURE AND MECHANIC ARTS
DURHAM, N. H.

NEW HAMPSHIRE COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS.

NEW HAMPSHIRE AGRICULTURAL EXPERIMENT STATION

DURHAM, N. H.

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The bulletins of the Experiment Station are published at irregular intervals and are sent *free* to all residents of New Hampshire requesting them.

The samples of fertilizers for the 1914 inspection were collected by Mr. Albion Weeks under the direction of Andrew L. Felker, Commissioner of Agriculture. Aside from duplicates 184 brands were sampled and received by the State Agricultural Experiment Station for analysis.

The brands of fertilizers received, almost without exception, have met their guarantee in every respect. The manufacturers are to be commended in their efforts to have their goods meet the guarantees.

One lot of New England Mineral Fertilizer has been analyzed. Its value is approximately 60 cents per ton or one twenty-fifth of the price at which it sells wholesale.

Messrs. M. J. Broggini, G. L. Ham, A. J. Grant, and P. S. Willand have assisted with the following analytical data.

Composition of Commercial Fertilizers Sampled and Analyzed in 1914.

MANUFACTURER AND BRAND.	NITROGEN.				PHOSPHORIC ACID.							POTASH.	
			Total.				Available.			Total.			
	Inorganic.	Organic.	Found.	Guaranteed.	Soluble.	Reverted.	Found.	Guaranteed.	Insoluble.	Found.	Guaranteed.	Found.	Guaranteed.
AMERICAN AGRICULTURAL CHEMICAL CO., New York City.													
Complete Manure for Top Dressing	3.36	1.71	5.07	4.94	3.30	1.40	4.70	4.00	.60	5.30	5.00	6.26	6.00
Complete Manure with 10 per cent. Potash	2.05	1.24	3.29	3.29	4.10	2.90	7.00	6.00	1.40	8.40	7.00	10.12	10.00
Fine Ground Bone	....	....	2.48	2.47	....	....	....	....	....	23.00	22.88	....	....
Grass and Lawn Top Dressing	3.07	1.05	4.12	3.91	2.20	4.20	6.40	5.00	.80	7.20	6.00	3.08	2.00
Grass and Oats Fertilizer	....	....	....	....	8.80	2.20	11.00	11.00	2.00	13.00	12.00	2.78	2.00
Six per cent. Ground Tankage	....	....	5.18	4.94	....	....	....	....	....	16.20	13.73	....	....
High Grade Dried Blood	....	....	9.86	9.87	....	....	....	....	....	....	....	....	....
High Grade Fertilizer with 10 per cent. Potash	1.60	1.06	2.66	2.47	2.90	3.90	6.80	6.00	2.00	8.80	7.00	10.15	10.00
Muriate of Potash	....	....	....	....	....	....	....	....	....	....	....	49.35	49.00
New Hampshire Special Chemical Mixture	.22	1.54	1.76	1.65	5.60	2.70	8.30	8.00	3.00	11.30	9.00	5.00	5.00
Nitrate of Soda	....	....	15.70	15.00	....	....	....	....	....	....	....	....	....
Pacific Potato Special	1.32	.86	2.18	2.06	5.20	3.50	8.70	8.00	1.50	10.20	9.00	3.14	3.00
Plain Super-Phosphate	....	....	....	....	12.70	1.40	14.10	14.00	1.50	15.60	15.00	....	....
Fourteen per cent. Plain Super-Phosphate	....	....	....	....	11.30	3.10	14.40	14.00	2.30	16.70	15.00	....	....
Sixteen per cent. Plain Super-Phosphate	....	....	....	....	14.40	1.70	16.10	16.00	1.10	17.20	17.00	....	....
Soluble Pacific Guano	1.21	1.17	2.38	2.06	5.20	4.40	9.60	8.00	1.30	10.90	9.00	1.91	1.50
Ten per cent. Vegetable and Potato Manure	1.23	.45	1.68	1.65	6.10	2.10	8.20	8.00	1.60	9.80	9.00	10.18	10.00
Bradley's Complete Manure for Corn and Grain	1.81	1.62	3.43	3.29	3.80	4.60	8.40	8.00	2.10	10.50	9.00	7.05	7.00
Bradley's Comp. Manure for Potatoes and Vegetables	2.05	1.24	3.29	3.29	7.40	1.00	8.40	8.00	2.70	11.10	9.00	6.76	7.00
Bradley's Complete Manure for Top Dressing Grass and Grain	3.03	2.04	5.07	4.94	2.90	2.50	5.40	4.00	1.60	7.00	5.00	6.57	6.00
Bradley's Complete Manure with 10 per cent. Potash	2.06	1.23	3.29	3.29	4.40	2.60	7.00	6.00	1.60	8.60	7.00	10.05	10.00
Bradley's Corn Phosphate	1.19	.87	2.06	2.06	6.20	2.00	8.20	8.00	1.70	9.90	9.00	1.76	1.50
Bradley's Eclipse Phosphate for all crops	.23	.88	1.11	1.03	4.40	4.10	8.50	8.00	2.90	11.40	9.00	2.21	2.00

Bradley's Potato Manure	1.60	.91	2.51	2.47	3.90	3.20	7.10	6.00	1.60	8.70	7.00	5.01	5.00
Bradley's Potato Fertilizer	.95	1.12	2.07	2.06	4.30	4.00	8.30	8.00	2.70	11.00	9.00	3.10	3.00
Bradley's Seeding Down Manure	1.56	.92	2.48	2.47	7.70	2.00	9.70	9.00	1.70	11.40	10.00	2.01	2.00
Bradley's XL Super-Phosphate of Lime	1.27	1.26	2.53	2.47	4.00	5.15	9.15	9.00	2.70	11.85	10.00	2.92	2.00
Cleveland Dryer Fertilizer for all crops	2.70	.87	1.14	1.03	5.60	2.60	8.20	8.00	2.80	11.00	9.00	2.50	....
Cleveland Dryer Potato Phosphate	.94	1.29	2.23	2.06	6.60	2.00	8.60	8.00	2.50	11.10	9.00	3.02	3.00
Cleveland Potato Phosphate	1.09	1.25	2.34	2.06	6.10	2.20	8.30	8.00	1.50	9.80	9.00	3.10	3.00
Crocker's Ammoniated Corn Phosphate	.83	1.24	2.07	2.06	5.50	3.50	9.00	8.00	2.30	11.30	9.00	1.78	1.50
Crocker's Potato Hop and Tobacco Fertilizer	.60	1.46	2.06	2.06	5.80	4.20	10.00	8.00	1.10	11.10	9.00	3.07	3.00
Crocker's Potato Hop and Tobacco Phosphate	1.23	1.81	3.04	2.06	6.80	2.30	9.10	8.00	.90	10.00	9.00	3.01	3.00
Crocker's Special Potato Manure	1.78	1.50	3.28	3.29	3.20	4.10	7.30	6.00	1.60	8.90	7.00	9.75	10.00
Cumberland Potato Fertilizer	1.08	1.02	2.10	2.06	5.30	3.20	8.50	8.00	1.80	10.30	9.00	3.09	3.00
Cumberland Super-Phosphate	1.40	1.18	2.58	2.06	5.40	3.40	8.80	8.00	1.20	10.00	9.00	2.01	1.50
Darling's Animal Fertilizer	1.30	2.02	3.32	3.29	7.30	1.00	8.30	8.00	1.70	10.00	9.00	4.12	4.00
Darling's Blood, Bone and Potash	2.10	2.02	4.12	4.11	3.50	3.50	7.00	7.00	2.00	9.00	8.00	7.02	7.00
Darling's Farm Favorite	1.29	1.01	2.30	2.06	6.20	2.60	8.80	8.00	1.70	10.50	9.00	3.26	3.00
Darling's Potato Manure	1.76	.75	2.51	2.47	4.10	3.20	7.30	6.00	.80	8.10	7.00	5.74	5.00
Great Eastern Complete Manure	1.88	.81	2.69	2.47	4.70	2.70	7.40	6.00	1.00	8.40	7.00	10.08	10.00
Great Eastern General	.35	1.07	1.42	.82	5.90	2.30	8.20	8.00	1.90	10.10	9.00	4.21	4.00
Great Eastern Northern Corn Special	.94	1.44	2.38	2.06	4.20	3.80	8.00	8.00	2.60	10.60	9.00	1.80	1.50
Packer's Union Gardner's Complete Manure	1.09	1.88	2.97	2.47	6.80	2.70	9.50	6.00	1.10	10.60	7.00	10.06	10.00
Packer's Union Potato Manure	1.53	.82	2.35	2.06	7.40	2.60	10.00	8.00	1.70	12.10	9.00	6.08	6.00
Quinnipiac Corn Manure	1.33	1.09	2.42	2.06	7.10	1.80	8.90	8.00	1.30	10.20	9.00	2.43	1.50
Quinnipiac Potato Phosphate	1.43	.81	2.24	2.06	7.10	2.50	9.60	8.00	1.40	11.00	9.00	3.05	3.00
Read's Farmer's Friend Super-Phosphate	.77	1.67	2.44	2.06	5.80	2.90	8.70	8.00	1.40	10.10	9.00	3.01	3.00
Read's Practical Special Fertilizer	.27	.78	1.05	.82	2.70	3.30	6.00	4.00	1.80	7.80	5.00	9.32	8.00
Read's Standard Super-Phosphate	.30	.78	1.08	.82	5.30	3.70	9.00	8.00	1.50	10.50	9.00	4.25	4.00
Thomas' Phosphate Powder (Basic Slag)	....	....	....	....	....	....	....	....	....	20.00	17.00	....	....
Williams & Clark Prolific Crop Producer	.17	1.19	1.36	.82	4.00	3.40	7.40	7.00	2.90	10.30	8.00	1.28	1.00
ARMOUR FERTILIZER WORKS, Chrome, N. J.													
Armour's Bone, Blood and Potash	2.45	1.67	4.12	4.11	6.50	1.80	8.30	8.00	1.60	9.90	8.50	7.20	7.00
Armour's Complete Potato Fertilizers	1.51	1.67	3.18	3.29	4.90	2.10	7.00	6.00	1.30	8.30	6.50	9.30	10.00
Armour's Crop Grower	.25	1.37	1.62	.82	6.70	1.80	8.50	8.00	1.10	9.60	8.50	3.26	2.00
Armour's Fruit and Root Crop Special	.57	1.00	1.57	1.65	6.70	1.70	8.40	8.00	1.70	10.10	8.50	5.40	5.00
Armour's Grain Grower	.20	1.45	1.65	1.65	6.40	2.80	7.20	8.00	1.70	10.90	8.50	2.12	2.00
Armour's High Grade Potato Fertilizer	.83	.84	1.67	1.65	5.80	2.40	8.20	8.00	1.70	9.90	8.50	10.20	10.00
Armour's Special Corn Manure	1.04	1.86	2.90	2.88	6.20	2.50	8.70	8.00	1.80	10.50	8.50	4.10	4.00
Armour's Truckers Special	1.49	2.03	3.52	3.29	4.20	2.70	6.90	6.00	.90	7.80	6.50	10.12	10.00

Composition of Commercial Fertilizers Sampled and Analyzed in 1914.—Continued.

MANUFACTURER AND BRAND.	NITROGEN.				PHOSPHORIC ACID.							POTASH.	
			Total.				Available.			Total.			
	Inorganic.	Organic.	Found.	Guaranteed.	Soluble.	Reverted.	Found.	Guaranteed.	Insoluble.	Found.	Guaranteed.	Found.	Guaranteed.
BEACH SOAP CO., Lawrence, Mass.													
Beach's Pure Bone Meal	....	....	2.10	....	....	....	....	....	....	2.93	....	....	....
BOWKER FERTILIZER CO., Boston and New York.													
Bowker's Corn Phosphate	1.29	.48	1.76	1.65	6.30	2.80	9.10	8.00	1.80	10.90	9.00	2.34	2.00
Bowker's Early Potato Manure	2.00	1.48	3.48	3.29	5.20	3.60	8.80	8.00	1.80	10.60	9.00	7.20	7.00
Bowker's Farm and Garden Phosphate	1.05	.67	1.72	1.65	5.90	2.60	8.50	8.00	1.20	9.70	9.00	2.33	2.00
Bowker's Fresh Ground Bone	....	....	2.63	2.47	....	....	....	....	....	23.00	22.88	....	....
Bowker's Highly Nitrogenized Formula	6.19	2.71	8.90	8.23	6.30	1.90	8.20	7.00	1.10	9.30	8.00	8.66	8.00
Bowker's Highly Nitrogenized Mixture	7.80	.46	8.26	8.23	5.60	2.50	8.10	7.00	.80	8.90	8.00	8.75	8.00
Bowker's Hill and Drill Phosphate	1.12	1.29	2.41	2.47	5.00	5.40	10.40	9.00	3.10	13.50	10.00	2.21	2.00
Bowker's Market Garden Fertilizer	1.75	.75	2.50	2.47	4.60	2.50	7.10	6.00	1.20	8.30	7.00	10.01	10.00
Bowker's Potash or Staple Phosphate	.28	.58	.86	.82	5.70	3.95	9.65	8.00	2.20	11.85	9.00	4.50	3.00
Bowker's Potato and Vegetable Fertilizer	1.54	.94	2.48	2.47	6.50	3.00	9.50	8.00	1.40	10.90	9.00	4.11	4.00
Bowker's Potato and Vegetable Phosphate	1.09	.77	1.86	1.65	5.70	4.10	9.80	8.00	1.30	11.10	9.00	3.50	2.00
Bowker's Sure Crop Bone Phosphate	.55	.51	1.06	.82	7.50	1.90	9.40	8.00	1.30	10.70	9.00	2.53	2.00
Bowker's Sure Crop Phosphate	.20	1.00	1.20	.82	4.40	4.80	9.20	8.00	2.30	11.50	9.00	2.19	2.00
Bray's Mixture for Grass	3.05	2.93	5.98	4.93	6.20	1.00	7.20	6.50	1.00	8.20	7.00	6.12	6.00
Nitrate of Soda	....	....	15.26	15.00	....	....	....	....	....	....	....	....	....
Pulverized Sheep Manure	....	....	2.52	1.25	....	....	....	....	....	3.10	1.50	4.40	2.00
Stockbridge Special Complete Manure for Corn and all Grain Crops	1.85	1.46	3.31	3.29	7.60	3.30	10.90	10.00	1.90	12.80	11.00	7.42	7.00
Stockbridge Special Complete Manure for Potatoes and Vegetables	2.30	1.04	3.34	3.29	4.20	2.00	6.20	6.00	1.70	7.90	7.00	10.14	10.00
Stockbridge Complete Manure for Seeding Down, Permanent Dressing and Legumes	.92	2.03	2.95	2.47	8.80	3.20	12.00	10.00	1.60	13.60	11.00	8.00	8.00
Stockbridge Special Complete Manure for Top Dressing and Forcing	3.52	1.51	5.03	4.94	3.30	1.00	4.30	4.00	1.50	5.70	5.00	6.05	6.00

JOSEPH BRECK & SONS CORP., Boston, Mass.													
Ram's Head Brand Pulverized Sheep Manure	....	....	2.26	2.25	....	....	....	....	....	1.90	1.50	2.60	1.50
BUFFALO FERTILIZER CO., Buffalo, N. Y.													
Top Dresser	3.32	1.89	5.21	5.70	2.70	4.00	6.70	6.00	2.70	9.40	7.00	5.22	5.00
COE MORTIMER CO., New York City.													
E. Frank Coe's Celebrated Special Potato Fertilizer	.73	1.07	1.80	1.65	6.00	2.30	8.30	8.00	1.70	10.00	9.00	4.10	4.00
E. Frank Coe's Columbian Corn and Potato Fertilizer	.85	.56	1.41	1.23	8.20	2.20	10.40	8.50	1.30	11.70	9.50	3.62	2.50
E. Frank Coe's Extra Special Potato Fertilizer and Fruit Grower	1.16	.45	1.91	1.65	6.20	3.00	9.20	8.00	1.10	10.30	9.00	10.09	10.00
E. Frank Coe's Famous Prize Brand Grass & Grain Fertilizer	....	....	....	....	7.90	2.10	10.00	10.00	1.10	11.40	11.00	2.88	2.00
E. Frank Coe's Fine Ground Bone	....	....	2.62	2.47	....	....	....	....	....	24.30	22.88	....	....
E. Frank Coe's High Grade Ammoniated Super-Phosphate	.83	1.17	2.00	1.85	5.20	3.10	8.30	8.00	1.90	10.20	9.00	3.04	3.00
E. Frank Coe's New Englander Corn and Potato Fertilizer	.22	1.06	1.28	.82	5.60	2.40	8.00	8.00	2.40	10.40	9.00	3.05	3.00
E. Frank Coe's Standard Potato Fertilizer	2.31	.98	3.29	3.29	2.40	3.90	6.30	6.00	1.90	8.20	7.00	9.56	10.00
E. Frank Coe's XXV Ammoniated Phosphate	.35	.80	1.15	.82	5.40	3.50	8.90	8.00	1.60	10.50	9.00	2.51	2.00
Muriate of Potash	....	....	....	....	....	....	....	....	....	....	....	19.10	19.00
Nitrate of Soda	....	....	15.52	15.00	....	....	....	....	....	....	....	....	....
ESSEX FERTILIZER CO., Boston, Mass.													
Essex Complete Manure for Corn, Grain and Grass	1.05	2.30	3.35	3.28	5.20	1.20	6.40	6.00	1.70	8.10	7.00	10.34	10.00
Essex Complete Manure for Potatoes, Roots and Vegetables	1.28	1.01	2.29	3.28	5.40	.80	6.20	6.00	1.50	7.70	7.00	10.00	10.00
Essex Market Garden and Potato Manure	.87	1.22	2.09	2.00	6.20	2.40	8.60	8.00	1.20	9.80	9.00	5.02	5.00
Essex Potato Grower with 10 per cent. Potash	1.28	1.41	2.69	2.46	5.40	1.90	7.30	6.00	1.20	8.50	7.00	10.00	10.00
Essex XXX Fish and Potash for all crops	.90	1.40	2.30	2.00	6.90	1.60	8.50	8.00	2.10	10.60	9.00	3.04	3.00
S. C. HAWES, Hampton Falls, N. H.													
Ground Bone and Tankage	....	....	4.99	....	....	....	....	....	....	12.50	....	....	....

Composition of Commercial Fertilizers Sampled and Analyzed in 1914.—Continued.

MANUFACTURER AND BRAND.	NITROGEN.				PHOSPHORIC ACID.							POTASH.	
			Total.				Available.			Total.			
	Inorganic.	Organic.	Found.	Guaranteed.	Soluble.	Reverted.	Found.	Guaranteed.	Insoluble.	Found.	Guaranteed.	Found.	Guaranteed.
THE INTERNATIONAL AGRICULTURAL CORP., Buffalo, N. Y.													
Buffalo Two-Eight-Ten	1.07	.65	1.72	1.60	6.20	2.70	8.90	8.00	2.30	11.20	9.00	10.10	10.00
Celery and Potato Special	.91	.96	1.90	1.60	6.00	3.00	9.00	8.00	1.40	10.40	9.00	10.08	10.00
Dissolved Phosphate	....	....	....	....	11.20	3.70	14.90	14.00	1.30	16.20	15.00	....	....
Farmers' Choice	.21	.74	1.05	.80	5.90	3.10	9.00	8.00	1.90	10.90	9.00	5.57	5.00
High Grade Manure	1.75	1.57	3.32	3.30	2.00	5.90	7.90	7.00	2.30	10.20	8.00	10.02	10.00
New England Special	.63	.89	1.52	1.50	4.70	4.40	9.10	9.00	2.70	11.80	10.00	4.90	5.00
Nitrate of Soda	....	....	15.70	....	....	....	....	....	....	....	....	....	....
Vegetable and Potato	1.25	.21	2.46	2.40	5.70	2.70	8.40	8.00	2.30	10.70	9.00	7.56	7.00
LISTER'S AGRICULTURAL CHEMICAL CO., (Manufactured by American Agricultural Chemical Co.) New York City.													
Nitrate of Soda	....	....	15.52	15.00	....	....	....	....	....	....	....	....	....
Lister's Grain and Grass Fertilizer	....	....	....	....	8.40	1.60	10.00	10.00	1.90	11.90	11.00	2.33	2.00
Lister's High Grade Special for Spring Crops	1.89	1.19	3.08	1.65	5.60	.80	6.40	8.00	1.00	7.40	9.00	5.60	10.00
Lister's 10 per cent. Potato Grower	2.14	1.18	3.32	3.29	2.70	4.00	6.70	6.00	2.00	8.70	7.00	10.10	10.00
Lister's Potato Manure	2.03	1.29	3.32	3.29	4.50	4.50	9.00	8.00	1.70	10.70	9.00	7.06	7.00
Lister's Special Corn	.79	.76	1.55	1.23	6.00	2.40	8.40	8.00	1.70	10.10	9.00	4.19	3.00
Lister's Special Potato Fertilizer	.86	1.25	2.11	1.65	4.40	4.70	9.10	8.00	1.50	10.60	9.00	4.38	3.00
Lister's Success Fertilizer	.81	.75	1.56	1.23	6.90	2.70	9.60	9.00	1.40	11.00	10.00	3.10	2.00
LOWELL FERTILIZER CO., Boston, Mass.													
Dried Blood	....	....	9.92	9.84	....	....	....	....	....	....	....	....	....

Ground Tankage	....	....	5.03	5.00	....	....	....	....	....	16.00	....	....	....
Lowell 12 per cent. Acid Phosphate	....	....	....	....	10.50	4.90	15.40	12.00	.80	16.20	14.00	....	....
Lowell 14 per cent. Acid Phosphate	....	....	....	....	12.20	4.80	17.00	14.00	.70	17.70	15.00	....	....
Lowell Animal Brand for all crops	1.19	1.28	2.47	2.46	8.20	.60	8.80	8.00	1.20	10.00	9.00	4.78	4.00
Lowell Bone Fertilizer for Corn, Grain, Grass and Vegetables	.72	.97	1.69	1.64	7.20	2.00	9.20	8.00	1.50	10.70	9.00	3.14	3.00
Lowell Cereal Fertilizer	.28	.83	1.11	.82	5.30	1.80	7.10	7.00	1.40	8.50	8.00	1.34	1.00
Lowell Dissolved Bone and Potash	.84	.92	1.76	1.64	6.60	2.40	9.00	9.00	2.40	11.40	10.00	2.30	2.00
Lowell Empress Brand for Corn, Potatoes and Grain	.49	1.06	1.55	1.24	6.40	1.90	8.30	7.00	1.20	9.50	8.00	2.19	2.00
Lowell Grass Mixture for Top Dressing and Lawns	1.90	2.63	4.52	4.10	6.10	1.30	7.40	7.00	1.60	9.00	8.00	5.96	6.00
Lowell Ground Bone	....	....	2.49	2.46	....	....	....	....	....	26.94	23.00	....	....
Lowell Lawn Dressing	3.94	.30	4.24	4.10	6.50	1.40	7.90	7.00	1.10	9.00	8.00	6.00	6.00
Lowell Market Garden Manure	1.95	2.14	4.09	4.10	5.10	2.50	7.60	7.00	1.00	8.60	8.00	6.37	6.00
Lowell Potato Grower with 10 per cent. Potash	1.29	2.00	3.29	3.28	5.20	1.50	6.70	6.00	1.40	8.10	7.00	10.30	10.00
Lowell Potato Manure	.87	.95	1.76	1.64	5.80	1.30	7.10	7.00	1.40	8.50	8.00	4.61	4.00
Lowell Potato Phosphate	1.11	1.58	2.69	2.46	8.40	.80	9.20	8.00	1.60	10.80	9.00	6.00	6.00
Lowell Potato Phosphate	1.07	1.63	2.70	2.64	6.90	1.70	8.60	8.00	1.80	10.40	9.00	6.72	6.00
Lowell Special Potato Fertilizer with 10 per cent. Potash	1.16	1.36	2.52	2.46	5.60	.80	6.40	6.00	1.40	7.80	7.00	9.44	10.00
Lowell Sterling Phosphate	.10	1.16	1.26	.82	6.20	3.10	9.30	8.00	1.10	10.40	9.00	4.68	4.00
Lowell Superior Fertilizer with 10 per cent. Potash	1.88	2.02	3.90	3.69	6.00	1.90	7.90	7.00	1.10	9.00	8.00	10.28	10.00
Muriate of Potash	....	....	....	....	....	....	....	....	....	....	....	50.95	50.00
Nitrate of Soda	....	....	15.58	1.50	....	....	....	....	....	....	....	....	....
Sulphate of Potash	....	....	....	....	....	....	....	....	....	....	....	49.88	43.00
McQUESTION & LEWIS, Manchester, N. H.													
Muriate of Potash	....	....	....	....	....	....	....	....	....	....	....	53.16	....
Nitrate of Soda	....	....	15.94	....	....	....	....	....	....	....	....	....	....
Sulphate of Potash	....	....	....	....	....	....	....	....	....	....	....	50.75	....
NATIONAL FERTILIZER CO., New York and Boston.													
Chittenden's Ammoniated Bone Phosphate	1.22	.52	1.74	1.65	5.80	2.90	8.70	8.00	1.30	10.00	9.00	2.37	2.00
Chittenden's Complete Grass Fertilizer	2.06	2.49	4.55	4.11	5.10	1.80	6.90	6.00	1.00	7.90	7.00	5.52	5.00
Chittenden's Complete Root and Grain Fertilizer	2.23	1.20	3.43	3.29	6.60	2.30	8.90	8.00	1.60	10.50	9.00	6.72	6.00
Chittenden's Eureka Potato Fertilizer	1.78	.83	2.61	2.47	4.50	1.60	6.10	6.00	1.60	7.70	7.00	10.40	10.00
Chittenden's High Grade Special Tobacco Fertilizer	3.33	2.44	5.77	5.76	5.30	1.40	6.70	5.00	1.40	8.10	6.00	9.60	10.00
Chittenden's 14 per cent. Plain Super-Phosphate	....	....	....	....	11.80	4.00	15.80	14.00	1.20	17.00	15.00	....	....
Chittenden's Potato Phosphate	1.75	.43	2.18	2.06	7.20	1.40	8.60	8.00	1.80	10.40	9.00	6.12	6.00
Chittenden's Universal Phosphate	.22	.73	.95	.82	5.70	3.10	8.80	8.00	1.40	10.20	9.00	5.18	5.00
Chittenden's Tobacco Special with Sulphate of Potash	.82	4.00	4.82	4.53	1.60	2.00	3.60	3.00	1.00	4.60	4.00	5.98	5.50

Composition of Commercial Fertilizers Sampled and Analyzed in 1914.—Continued.

MANUFACTURER AND BRAND.	NITROGEN.				PHOSPHORIC ACID.							POTASH.	
			Total.				Available.			Total.			
	Inorganic.	Organic.	Found.	Guaranteed.	Soluble.	Reverted.	Found.	Guaranteed.	Insoluble.	Found.	Guaranteed.	Found.	Guaranteed.
New England Fertilizer Co., Boston, Mass.													
New England Corn and Grain Fertilizer	.33	.97	1.50	1.24	6.00	1.60	7.60	7.00	1.10	8.70	8.00	2.49	2.00
New England Corn Manure for Corn, Vegetables and Root Crops	1.40	1.92	3.32	3.28	6.70	1.40	8.10	8.00	2.00	10.10	9.00	7.02	7.00
New England Corn Phosphate	.88	.94	1.82	1.64	7.10	1.30	8.40	8.00	2.10	10.50	9.00	3.12	3.00
New England High Grade Potato Fertilizer	1.76	.92	2.68	2.46	7.30	.90	8.20	8.00	2.00	10.20	9.00	6.00	6.00
New England Market Garden Manure	1.92	2.06	3.98	4.10	6.10	1.90	8.00	7.00	1.10	9.10	8.00	7.92	7.00
New England Potato Fertilizer	4.80	1.23	1.71	1.64	6.20	.90	7.10	7.00	1.70	9.00	8.00	4.35	4.00
New England Potato Grower with 10 per cent. Potash	.90	1.57	2.47	2.46	5.20	1.50	6.70	6.00	1.20	7.90	7.00	10.09	10.00
New England Super-Phosphate for all crops	1.61	1.04	2.65	2.46	7.60	1.00	8.90	8.00	1.30	10.20	9.00	4.05	4.00
The New Mineral Fertilizer Co., Boston, Mass.													
New Mineral Plant Food	....	....	.11	....	....	....	....	....	....	.60	....	.08	....
Nitrate Agencies Co., Boston, Mass.													
Nitrate of Soda	....	....	15.57	15.00	....	....	....	....	....	....	....	....	....
Olds & Whipple, Hartford, Conn.													
Olds & Whipple Complete Corn and Potato Fertilizer	1.69	1.90	3.59	3.30	1.70	7.00	8.70	6.00	3.90	12.60	6.00	7.20	6.00
Olds & Whipple Complete Tobacco Fertilizer	1.01	4.39	5.40	4.50	1.00	3.00	4.00	3.00	1.10	5.10	3.00	6.68	5.50
Olds & Whipple High Grade Potato Fertilizer	1.19	2.50	3.69	3.30	.80	5.60	6.40	6.00	2.80	9.20	6.00	11.44	10.00
Olds & Whipple Nitrate of Soda	....	....	15.66	15.00	....	....	....	....	....	....	....	....	....
Sulphate of Potash	....	....	....	....	....	....	....	....	....	....	....	48.12	48.00

PARMENTER & POLSEY FERTILIZER CO., Boston, Mass.													
P. & P. Aroostook Special with 10 per cent. Potash	1.96	1.76	3.72	3.69	6.30	1.10	7.47	7.00	1.30	8.70	8.00	11.12	10.00
P. & P. Maine Potato Fertilizer with 10 per cent. Potash.	1.14	2.39	3.53	3.28	4.80	1.70	6.50	6.00	1.30	7.80	7.00	10.04	10.00
P. & P. Plymouth Rock Brand for all crops	1.70	1.02	2.72	2.46	7.50	.90	8.40	8.00	1.40	9.80	9.00	4.30	4.00
P. & P. Potato Grower with 10 per cent. Potash	1.16	1.49	2.65	2.46	5.70	.80	6.50	6.00	1.10	7.60	7.00	10.00	10.00
ROGERS & HUBBARD CO., Middletown, Conn.													
Complete Phosphate	.42	1.26	1.68	1.50	4.80	3.60	8.40	7.00	2.60	11.00	8.00	5.65	5.00
Fertilizer for Seeding Down and Fruit	.22	2.03	2.25	2.20	.70	12.50	13.20	6.50	5.70	18.90	16.00	12.34	12.00
New Market Garden Phosphate	1.08	1.05	2.13	2.00	4.20	2.50	6.70	6.00	2.40	9.10	7.00	10.20	10.00
Oats and Top Dressing	6.22	2.44	8.66	8.50	.80	6.10	6.90	4.50	2.00	8.90	8.00	8.26	8.00
Potato Phosphate	1.02	1.08	2.10	2.00	6.90	2.90	9.80	9.00	2.40	12.20	10.00	5.12	5.00
Soluble Corn and General Crops Manure	1.11	1.41	2.52	2.50	2.80	3.60	6.40	6.00	2.20	8.60	8.00	8.30	8.00
Soluble Potato Manure	2.51	2.60	5.11	5.00	2.30	7.10	9.40	7.00	2.30	11.70	10.00	6.15	5.00
J. W. SANBORN, Pittsfield, N. H.													
Prof. Sanborn's Chemical Fertilizer for Potatoes and Corn	1.34	1.27	3.61	3.30	6.70	1.70	8.40	7.00	1.30	9.70	9.50	8.68	8.00
Prof. Sanborn's Chemical Fertilizer for use in Hill and Drill	1.42	1.17	2.59	2.40	5.70	1.60	7.30	7.00	2.90	10.20	11.50	4.66	4.00
Prof. Sanborn's Chemical Fertilizer for Grass and Grain	3.63	1.51	5.14	4.75	3.60	1.50	5.10	4.50	2.10	7.20	6.00	6.08	5.75
Prof. Sanborn's Special Grass Fertilizer for Acid Soils	4.57	.91	5.48	5.00	2.00	4.70	6.70	5.00	1.10	7.80	7.50	6.92	6.60
Prof. Sanborn's Special Potato	1.81	1.50	3.31	3.29	5.10	1.10	6.50	6.00	1.50	8.00	8.50	10.00	10.00
Prof. Sanborn's Chemical Fertilizer for Clover and Beans.	1.63	.95	2.58	2.00	2.70	4.50	7.20	6.00	2.20	9.40	8.00	10.40	10.00
FRANK SMITH & CO., Lancaster, N. H.													
For Seeding Grain, Potatoes, Corn	2.24	1.29	3.53	....	7.80	1.10	8.90	8.04	1.20	10.10	8.04	10.04	10.00
Top Dressing	4.80	1.14	5.94	5.50	5.20	1.90	7.10	7.00	.70	7.80	....	6.75	6.60